

**Addendum Work Plan for Collection of Smelt, *Osmerus mordax*,
at the Ashland/NSP Lakefront Superfund Site**

As discussed in Section 4.2.2.4.1 of the RI/FS Work Plan for the Ashland/NSP Lakefront Superfund Site dated February 2004 (Revision 01), Xcel Energy proposes to implement the Work Plan developed by SEH for collection of fish tissue to support a baseline human health and ecological risk assessment. This work plan included collection of smelt and two other “commonly consumed” species at a location near the sediment area of concern (AC) at the site and at reference stations.

Because the opportune time to collect smelt is during their spawning run which has historically taken place between late March and May and because the RI/FS work plan is not yet approved, Xcel Energy is submitting this separate plan for collection of smelt to get approval in time to collect this species this year.

Work Plan

Smelt will be collected during their spring spawning run at three locations, one in the sediment AC and at two reference locations. The reference locations may include Kakagon Slough or Fish Creek as mentioned in the SEH RI/FS work plan or may include other reference sites in Chequamegon Bay selected after a reconnaissance and discussions with WDNR staff. URS fisheries biologists will evaluate both the “Hot Pond” at the Bayfront Power Plant and “Pamida Beach” as potential reference areas during a site reconnaissance conducted prior to sampling.

Sixteen composite samples of at least 200 grams¹ will be collected in the sediment AC. Eight composite samples will be collected at the two reference locations. The sixteen samples from the sediment AC will be divided into two eight-sample lots, the results from one lot to support the ecological risk assessment, and results from the other to support the human health risk assessment. Fish in the lot to be used for human health risk assessment will be prepared as for cooking by removing the head and entrails.² Eight composite samples will be collected from each reference area. Duplicate and Method Blank samples will be collected as described in the FSP (submitted February 2004)

Fish selected for compositing should be at the larger end of the size range; sex and size of individual fish will be recorded. Every effort should be made to collect fish of the same size and sex for all composite samples.

The smelt will be collected at night using dip nets, seine or fyke nets as conditions dictate based upon the opinion of URS fisheries biologists in consultation with WDNR personnel. Sample handling and laboratory processing methodology are similar to those proposed by SEH (2003)

¹ Since individual smelt will average around 3 ounces (~85 grams) there will be approximately three or four smelt in each composite sample.

² Because the head and entrails will be removed from fish in this lot, more fish will be needed in the composite sample to equal 200 grams.

and are described in detail in EPA Fish Sampling Guidance (USEPA 2000) and SOP 230 of the FSP (submitted February 2004).

The State of Wisconsin normally requires a “scientific collection permit” for this sampling. However, the WDNR in consultation with USEPA informed us that because the site is on the National Priorities List, this permit is not required.

Chemical analysis will be conducted by Severn Trent in Burlington, VT. Once the fish are received in the laboratory each composite sample will be prepared for analysis as described in Appendix J of the EPA Fish Sampling Guidance (USEPA 2000), “Recommended Procedures for Preparing Whole Fish Composite Homogenate Samples.” Fish samples will be analyzed for PAHs, lipids and per cent moisture (See Table 1 in the FSP).

The quality assurance/quality control documentation for Severn Trent – Burlington is attached to this addendum work plan.

References

USEPA. 2000. Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, Volume 1. Fish Sampling and Analysis. Third Edition. November 2000. EPA 823-B-00-007.